Tab A. "Catalog"

Claims using this term: claims 3, 26, 28, and 29 of the '683 patent; claims 1, 2, 6, 9, 21, 22, and 29 of the '516 patent

Lawson remaining terms and phrases 1

Lawson's Proposed Definition	Lawson's Proposed Definition
a collection of text and images organized and published by a vendor, representing products sold by the vendor	"Text describing the catalog items, and images of the items, may be viewed." ('683 patent, Summary of the Invention, 3:15-16) "The catalogs, and hence catalog database 36, preferably include such information as part number, price, 40 catalog number, vendor name or I.D., and vendor catalog number, as well as textual information and images of or relating to the catalog products. The nature of the business that the Customer using electronic sourcing system 5 conducts will determine which product catalogs are made a part 45 of catalog database 36." ('683 patent, Detailed Description of the Invention, 4:36-45) "A feature of the present invention is the ability to search multiple catalogs from different suppliers. For example, catalog database 36 can contain the catalog or catalogs published by a vendor Distributor, having Distributor's catalog numbers for all listed products and vendor manufacturer's part numbers for many of the listed products. Catalog database 36 can further contain catalogs published by some of the vendor manufacturers, listing the manufacturers' part numbers for certain products correspondingly listed in the Distributor's catalogs and for certain products not listed in the Distributor's catalogs. Catalog database 36 can further contain catalogs published by outside suppliers, whether other manufacturers or other distributors, listing such vendor's products different from those in the Distributor's catalogs." ('683 patent, Detailed Description of the Invention, 4:46-60) "If the user double clicks on highlighted page 1106, the text

shown in **Appendix IV** (and related images, not shown) would appear on monitor 22." ('683 patent, Detailed Description of the Invention, 11:4-6 (emphasis added))

APPENDIX IV

(FSC1106)Fisher Isotemp 800 Series Programmable Ovens

Fisher Isotempx 800 Series Programmable Ovens
Three linear heat-up and cool-down stages
Talking control panel
Keypad and lighted graphics
300 to 325° C. range
RS-422 serial communications capability
The latest technology at your fingertips. Accurate, easy-to-use controls allow you to program up to 3 heat-up stages and 3 cool-down stages linearly to provide the most appropriate conditions for your samples. Using the large keyboard, you can choose the heat-up or cool-down rate, the temperature you want for each stage, and the length of time you want the oven to hold each temperature. And, for projects requiring repeatability, you can duplicate the settings at any time.
Help Catalogs Search Order List Minimize Clear Prev Next Exit

"17. An electronic sourcing system as recited in claim 16, wherein at least one catalog database contains said data from each of said catalogs, and said converting means includes a **non-catalog database** containing a cross-reference table such that use of a reference code corresponding to an entry in said cross-reference table links said item from said first catalog to data relating to said item from said second catalog." ('516 patent, claim 17 (emphasis added))

"One such system is the Fisher Scientific Requisition and Inventory Management System ('Fisher RIMS'), described U.S. Pat. No. 5,712,989, filed Apr. 2, 1993 and assigned to Fisher Scientific Company of Pittsburgh, Pa., the disclosure of which is incorporated herein by reference." ('683 patent, Background of the Invention, 1:13-17)

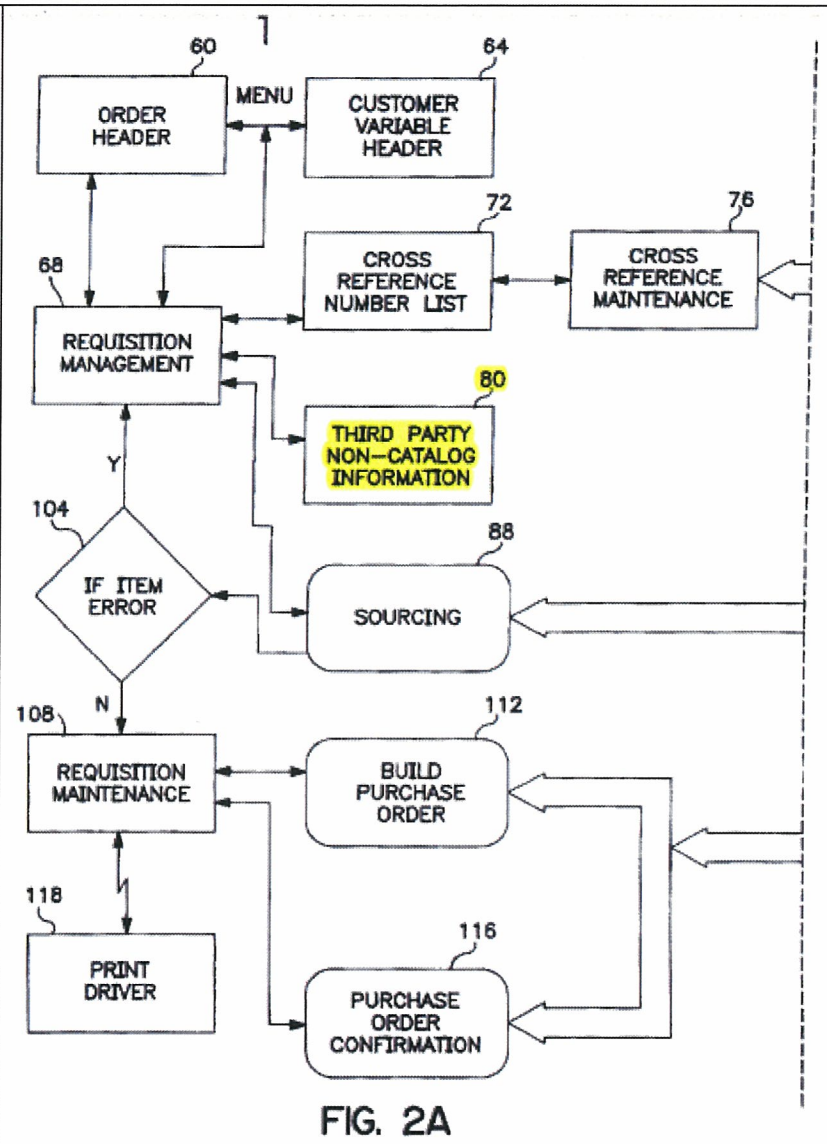

FIG. 2A

('989 patent, Fig. 2A)

"Hitting the F10 key calls the Non-Catalog Information data screen 80 onto the screen of monitor 41. An example of a Non-Catalog Information data screen 80 is shown in **Table V**." ('989 patent (incorporated by reference in the patents-in-suit), Detailed Description of the Invention, 10:39-42 (emphasis added))

	TABLE V ***** NON-CATALOG INFORMATION ***** CUST AC: 363690-006 XYZ, INC. CALLER PHONE: REQ NBR: PJJ TEST LINE NBR: 001 QTY UN PC VENDOR CAT UN PRC UN COST EXTD PRC GP NBR SIZE 1 EA 0.00 0.00 DESCRIPTION: TEST TUB DIR SHP: N SRV. CHG: 0.00 COMMENT LINES VENDOR NBR: VENDOR NAME: FROM DATE: ADDR: REQ: PJJ75 PROD TYPE: PHONE: - - EXT: 05 STOCK NBR: T-110209 RESPONSE: KEY(S): F2: ITEM; F3: QUIT; F4: NEW REQ; F6: SOURCE; F7: PAGE BACK: F8: PAGE FORWARD; F12: CANCEL ('989 patent (incorporated by reference in the patents-in-suit), Table V)

Tab A: "Catalog"

requisition/purchasing system for generating a requisition including entries for the desired catalog items.

In accordance with the invention, an electronic sourcing system and method used by the system are provided. The system includes a computer that maintains a catalog database of data including product information (such as product identification information, and descriptive information) relating to catalog items available from vendor product catalogs, and a means for building (generating) a requisition including at least one requisitioned item. Information at least partially identifying an item desired to be requisitioned is entered by a user, and utilized by a means for searching the database for catalog items matching that information and for selecting at least one catalog item located as a result of the search. Text describing the catalog items, and images of the items, may be viewed. Data identifying selected catalog items are communicated to the requisition building means, which generates a requisition including entries for items corresponding to the selected catalog items. Additionally, the invention includes a means for checking the availability in one or more inventory locations of the corresponding desired catalog items, and for generating one or more purchase orders for desired items from inventory locations stocking the items.

BRIEF DESCRIPTION OF THE DRAWINGS

The above and other objects and advantages of the invention will be apparent from consideration of the following detailed description, taken in conjunction with the accompanying drawings, in which like reference characters refer to like parts throughout, and in which:

FIG. **1**A is a block diagram showing one exemplary embodiment of the overall system of the present invention;

FIG. **1**B is a block diagram showing another exemplary embodiment of the overall system of the present invention;

FIG. **1**C is a block diagram showing a portion of the embodiment of FIG. **1**A in greater detail;

FIG. **2** is a block diagram showing the flow of control and interaction between the various programs and data screens of the programs used for requisition management and vendor catalog searching of the present invention; and

FIG. **3** is a block diagram showing a portion of a system (Fisher RIMS) for requisition management, including the electronic sourcing system of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

FIGS. **1**A and **1**B show preferred embodiments of the electronic sourcing system **5** of the present invention. As shown in FIG. **1**A, a local computer **20**, which is preferably located at or near a Customer site and the site of Just-In-Time ("JIT") Inventory, is preferably used by an on-site Customer Service Representative ("CSR") dedicated to a Customer to assist that Customer in requisitioning items needed.

Local computer **20** includes conventional color monitor **22** and alphanumerical keyboard **24** including twelve function keys F**1**, F**2**, . . . F**12**. Local computer **20** is also coupled to printer **26**.

Local computer **20** is preferably a conventional microcomputer (such as a 386-, 486- or Pentium-class personal computer) capable of operating the required programs and of transmitting and receiving the required communications, running the OS/**2** operating system **32** and also running the CICS OS/**2** application **34**, both of which are available from IBM.

Electronic sourcing system **5** also includes a requisition/purchasing system **40**, preferably but not necessarily the Fisher RIMS system, and a search program **50** that is capable of searching through large volumes of information quickly and accurately. Preferably but not necessarily, the Technical Viewer **2** search program ("TV/2"), available from IBM, is used as search program **50**. As shown in the embodiment of FIG. **1**A, Fisher RIMS **40** and TV/**2** search program **50** are run by local computer **20**.

Fisher RIMS system **40** is comprised of numerous program modules, including several programs **44**, which operate within CICS environment **34** of OS/**2** operating system **32**. Programs **44** include, among others, Requisition Management ("REQI") program **44**A, Inventory Sourcing program or programs **44**B, Requisition Maintenance program **44**C, Customer Variable program **44**D, and Order Header program **44**E, each of which will later be described in greater detail. REQI program **44**A is most often the RIMS program **44** that interfaces with TV/**2** search program **50**.

Fisher RIMS system **40** also includes several Fisher RIMS databases **42**. These databases **42** preferably include requisition databases **42**A, inventory databases **42**B, and customer-specific databases **42**C, each maintained within OS/**2** operating system **32**.

Local computer **20** also preferably runs Shell program **52**, which operates under search program **50** and is used to customize search program **50** to generate Order Lists **48** (shown in FIG. **1**C) with particular fields of formatted data about the items selected using search program **50**. Local computer **20** is preferably capable of running both a RIMS program **44** and Shell program **52** at the same time (i.e., in a multi-tasking environment), but the user of local computer **20** usually sees only RIMS program **44** or Shell program **52** at one time in the foreground on monitor **22**.

Local computer **20** is also provided with a catalog database **36** comprised preferably of at least two vendor product catalogs. The catalogs, and hence catalog database **36**, preferably include such information as part number, price, catalog number, vendor name or I.D., and vendor catalog number, as well as textual information and images of or relating to the catalog products. The nature of the business that the Customer using electronic sourcing system **5** conducts will determine which product catalogs are made a part of catalog database **36**.

A feature of the present invention is the ability to search multiple catalogs from different suppliers. For example, catalog database **36** can contain the catalog or catalogs published by a vendor Distributor, having Distributor's catalog numbers for all listed products and vendor manufacturer's part numbers for many of the listed products. Catalog database **36** can further contain catalogs published by some of the vendor manufacturers, listing the manufacturers' part numbers for certain products correspondingly listed in the Distributor's catalogs and for certain products not listed in the Distributor's catalogs. Catalog database **36** can further contain catalogs published by outside suppliers, whether other manufacturers or other distributors, listing such vendor's products different from those in the Distributor's catalogs.

Where the Fisher RIMS system is in use with electronic sourcing system **5**, a host computer **10** located at a Distributor site is also provided, as shown in FIG. **1**A. Host computer **10** controls all inventory, pricing and requisitioning operations of the Distributor's regularly stocked items using host pricing and inventory databases **11**. Host pricing and inventory databases **11** may include such information as: descrip-

Tab A: "Catalog"

printing on printer **26**, images and text from the catalog page on which the item selected is located. For example, as shown in Appendix III, page 1106 of the Fisher catalog has been selected. If the user double clicks on highlighted page 1106, the text shown in Appendix IV (and related images, not shown) would appear on monitor **22**. On the sample screen shown in Appendix IV, the item that appears on page 1106 of the Fisher catalog relates to Fisher Isotemp 800 Series Programmable Ovens. Conventional scroll bars appearing on the screen (not shown in Appendix IV) enable the user to scroll through additional catalog information (text and/or images) not yet displayed on the screen. An example of such additional textual information is depicted on the screen shown in Appendix V.

On the screen of Appendix V, the vendor distributor's catalog number ("Cat. No.") 13-246-818F is highlighted. The catalog number of an item normally appears in blue in a screen such as Appendix V. This blue lettering is used for catalog numbers, trademarks, footnotes and other entries for which database **36** contains additional information or cross-references (called hyperlinks). When a search is conducted and the catalog segments of the resultant hit list are reviewed, the text corresponding to the search parameter is highlighted in red. Thus, in Appendix V, catalog number 13-246-818F (identified in the search) appears in red, while catalog number 13-246-838F and the trademark Isotemp each appear in blue. A word, vendor part number or catalog number located by the search will appear red, even if that word or number did not have an associated hyperlink (and thus is not normally blue).

When in search program **50**, particular items selected can be added to an Order List **48** pending in Shell **52** and search program **50**. When the Ordering portion of catalog text is viewed (as in Appendix V), particular items can be selected so as to be added to the Order List **48** by double clicking on the highlighted catalog number (even if a different field was also highlighted as a result of a search of catalog database **36**). The item is then added to an Order List **48** that is created in Shell **52** via a hypertext link. The items that are sent to the Order List **48** are collected and shown on the Items Selected screen of Shell **52**. An example of an Items Selected screen of Shell **52** is shown in Appendix VI. The Items Selected screen depicts certain fields of Order List **48** that can be viewed and edited within search program **50**. For example, Shell **52** permits the user via a pop-up window (not shown) to select units, e.g. pack or case, and quantity to be ordered, e.g. two packs. Alternatively, the data in these fields can default to one of the smallest unit and the units can be changed when the order is reviewed in REQI program **44A**. Additional fields on the same items are also present in memory at this stage. Upon clicking on "Order" when the Items Selected screen (Appendix VI) is viewed, many or all of these fields on the items in the Order List are transmitted back to REQI program **44A** (via the programs of interface **60** shown in FIG. **2**) to be added to the pending Requisition Item Table **46**. The sample Items Selected screen shown in Appendix VI includes the Isotemp Oven with catalog number 1324818F that was located as a result of the search for all items in catalog database **36** that match the part number 13246818F that was entered in the STOCK NBR field of REQI program **44A** and its associated Requisition Management data screen **110** of Fisher RIMS system **40**.

The following fields are transferred to Order List **48** created in TV/**2** search program **50**: Vendor name, vendor number, vendor part (catalog) number, product description, list price, page number, quantity, unit and catalog text. However, not all of these fields are viewed on the Items Selected screen.

If more than one item on Requisition Management data screen **110** had been marked with an "S," the process described above is repeated.

If the user desires to do additional searching in catalog database **36** that is not connected to catalog or other items that have been listed on Requisition Management data screen **110** of Fisher RIMS system **40**, he or she can click the box on footer bar of Shell **52** that is labelled "Search." Then, a Search screen comes up on monitor **22** of local computer **20**. An exemplary Search screen is shown in Appendix VII. In this screen, the usual footer bar is visible in the background, but is not active.

Using the Search screen, a user can search catalog database **36** by page, text description, part number (where the user has the further option to search by Fisher part number, for example if Fisher is to be the desired vendor), Vendor part number, vendor name (for vendors other than Fisher), or bulletin. Stock numbers specific to the customer can also be present in catalog database **36** and searched using the screen of Appendix VII. "Bulletin" refers to an additional vendor publication with detailed product information that may not be included in a vendor catalog. Searching for information contained in bulletins may be done by bulletin number, but only if bulletins have been made a part of catalog database **36**. For purposes of this disclosure, bulletins when included in a catalog database are considered a type of catalog.

After the user has entered the field to be searched on the Search Screen, the user clicks on the "SEARCH" box near the bottom of the Search Screen. A Hit List **47** indicating all items from catalog database **36** that match the search field that was entered on the Search Screen then is generated. Then, in a manner similar to that described previously, the user can scroll through the Hit List **47** and double click on the catalog page or panel desired. The user may then also view the detailed information located on the catalog page that was selected from the Hit List **47**. During the search, the user may also add additional items to the Order List **48** being built in Shell **52** if desired, whether those additional items had been selected from the Hit List **47** or not.

The Order List that the user has built in Shell **52** is maintained on the Items Selected screen, shown in Appendix VI. From the Items Selected screen, the user can cancel the order by clicking on the "Cancel" box at the bottom of the screen, delete an item from the Order List **48** by moving the pointer bar to the item to be deleted and then clicking on the "Delete" box at the bottom of the screen, or delete all items by clicking on the "Delete All" box. The user can also view catalog text and images for a particular item by clicking on the "Description" box.

Once the user has completely built the Order List **48** within Shell **52** and TV/**2** search program **50**, he or she can transmit it to Fisher RIMS system **40**. This is accomplished by clicking on the "Order" box at the bottom of the Items Selected screen to communicate the completed Order List **48** to Fisher RIMS system **40**.

The user may have selected no items, one item or several items from the catalogs contained in catalog database **36** by using TV/**2** search program **50**. If no items have been selected, the original items that were entered on Requisition Item Table **46** of Requisition Management data screen **110** will remain on that screen and will continue to be processed by Fisher RIMS system **40**. If one or several desired catalog items were selected in TV/**2** search program **50**, the first item selected will replace the original item on Requisition Item Table **46** of Requisition Management data screen **110**. Additional items that were selected from the search that was performed in TV/**2** search program **50** will be added to Requisition Item Table **46** of Requisition Management data screen **110**.

Tab A: "Catalog"

being generally equivalent, and wherein a selection of one identification code from one of said first and second catalogs provides the other identification code from the other of said catalogs.

10. An electronic sourcing system as recited in claim **9**, wherein said first identification code is identical to said second identification code.

11. An electronic sourcing system as recited in claim **9**, wherein at least of one of said first and second catalogs includes said first and second identification codes.

12. An electronic sourcing system as recited in claim **9**, wherein said selection includes a comparison of said one of said first and second identification codes with a cross-reference table listing both of said identification codes as being generally equivalent.

13. An electronic sourcing system as recited in claim **9**, wherein a user selects one of said first and second identification codes, lacks access to said catalog corresponding to said selected identification code, but is given access to the other said catalog corresponding to said non-selected identification code.

14. An electronic sourcing system as recited in claim **9**, wherein a user selects one of said first and second identification codes, and has access to both said first and second catalogs.

15. An electronic sourcing system as recited in claim **9**, wherein said first and second identification codes correspond to a part number.

16. An electronic sourcing system comprising:

at least two product catalogs containing data relating to items such that an item in a first catalog is generally equivalent with an item in a second catalog; and

converting means for converting data relating to said item from said first catalog to data relating to said item from said second catalog.

17. An electronic sourcing system as recited in claim **16**, wherein at least one catalog database contains said data from each of said catalogs, and said converting means includes a non-catalog database containing a cross-reference table such that use of a reference code corresponding to an entry in said cross-reference table links said item from said first catalog to data relating to said item from said second catalog.

18. An electronic sourcing system as recited in claim **16**, wherein one or more catalog databases contain said data from each of said catalogs, and said converting means including one or more catalog databases including an identical reference code corresponding to said data from said first catalog and said data from said second catalog.

19. An electronic sourcing system as recited in claim **16**, wherein said first catalog may be searched separately from said second catalog.

20. An electronic sourcing system as recited in claim **19**, wherein a user lacks access to said first catalog and has access to said second catalog, such that a request for an item in said first catalog provides said data from said second catalog.

21. An electronic sourcing system comprising:

a requisition module including data fields, user-generated criteria entered into at least one of said data fields to generate at least partial criteria corresponding to a desired item;

a catalog collection searching module, said searching module including a collection of catalogs of items stored in an electronic format, a catalog selection criteria used to select less than said entire collection, said searching module being used to generate additional search-module criteria for said data fields of said requisition module;

a multiple purchase order generation module, said purchase order generation module creating multiple purchase orders from a single requisition created with said user-generated criteria and said search-module criteria;

wherein each of at least two catalogs include a generally equivalent item from a different source, said requisition module working in combination with said catalog searching module to determine multiple sources for said item;

wherein said multiple sources is limited by said catalog searching module providing a match according to said user-generated criteria, said search-module criteria and a determination system that located items are generally equivalent; and

wherein said determination system includes a cross reference table matching an identification code from a first located item with a second identification code from a second located item.

22. An electronic sourcing system as recited in claim **21**, wherein said determination system includes an identical identification code for each of said located items.

23. An electronic sourcing system, as recited in claim **21**, wherein said requisition module generates a preferred requisition based on at least one of product availability and user preferences in accordance with a determination of multiple sources for a desired item.

24. An electronic sourcing system as recited in claim **21**, wherein less than said catalog selection criteria is determined by at least one of said user-generated criteria or user characteristics.

25. An electronic sourcing system as recited in claim **24**, wherein said user characteristics include a listing of catalogs from which a user is allowed to purchase.

26. An electronic sourcing module as recited in claim **21**, wherein said requisition module uses at least one predetermined rule to select which of multiple sources to use for said desired item.

27. An electronic sourcing system as recited in claim **26**, wherein said pre-determined rule relies on item availability.

28. An electronic sourcing system as recited in claim **26**, wherein said pre-determined rule relies on a hierarchy of preferred sources.

29. An electronic sourcing system comprising:

a collection of catalogs of items stored in an electronic format;

a first set of pre-determined criteria associated with said collection of catalogs;

a second set of pre-determined criteria associated with items from each of said catalogs;

a catalog selection protocol, said catalog selection protocol relying on said first set of pre-determined criteria to select less than said entire collection of catalogs, and including matching a vendor identification code with a subset of said collection of catalogs, wherein said subset of catalogs includes both a vendor catalog from a predetermined vendor and a second catalog from a predetermined third party;

a search program, said search program relying on said second set of criteria to select specific items from said catalogs determined from said catalog selection protocol; and

a cross-reference table linking a vendor item catalog number from said vendor catalog with an item catalog number from said predetermined third party.

* * * * *

ELECTRONIC SOURCING SYSTEM AND METHOD

BACKGROUND OF THE INVENTION

This invention relates to systems and methods for interfacing product information, such as is typically found in vendor catalogs that are provided to customers, and requisition/purchasing systems and methods that may use the results of searches of product information.

There are a number of known requisition/purchasing systems that manage and process requisitions and purchase orders. One such system is the Fisher Scientific Requisition and Inventory Management System ("Fisher RIMS"), described U.S. Pat. No. 5,712,989, filed Apr. 2, 1993 and assigned to Fisher Scientific Company of Pittsburgh, Pa., the disclosure of which is incorporated herein by reference. As its title suggests, Fisher RIMS can also manage inventory. In the Fisher RIMS system, requisition records are created from a real-time interaction between a host computer (generally a mainframe) and a local computer (generally at a customer site), with each computer using data from its own respective database of inventory in conjunction with information entered by a customer service representative operating the local computer. By accessing its respective database, each computer can build and transmit to the other computer communications blocks of data relating to a particular requisition of an item in inventory (or to the management of the inventory itself). The other computer can then use the received data to continue processing of the requisition. Thus, requisition records are created from a real-time interaction between the host and local computers, with each computer using data from its respective database in conjunction with information entered by a customer service representative operating the local computer.

Other requisition/purchasing systems can be grouped broadly into four classes. First, requisition management systems licensed to corporations purchasing for their own use include ORION software (from Medical Management Systems), ENTERPRISE software (from ESI), and NOVA software (from Johnson & Johnson). Second, there exist systems provided by distributors for transmitting orders to them in proprietary formats. Such systems include QUICKLINK (from Abbott), ASAP system (from Baxter) and LIGHTNING system (from Fisher Scientific). Third, software packages licensed by software developers to customers and/or suppliers enable the transmission of customer purchase orders as EDI purchase orders (in ANSI X.12 format). Examples of such systems include ON-CALL EDI (from TSI International), EDI Express software (from General Electric Information Services) and GETRAN software (from Sterling Software). Fourth, comprehensive business management packages such as REAL WORLD software (from Real World Corporation of Concord, NH) and ASK software (from The ASK Group) contain a purchasing module to create replenishment orders when inventoried items fall below restocking points. The same purchasing module can also be used to place spot orders for products keyed in by the customer's purchasing personnel.

None of these known requisition/purchasing systems (including Fisher RIMS), however, provides a capability for a user readily to search for and locate information about the products that may be requisitioned and ordered in connection with the requisition/purchasing system. They also do not provide the capability for a user to search a database containing two or more vendor catalogs, and then to transfer information about the items selected as a result of such searches into a requisition/purchasing system such as Fisher RIMS for building a requisition for the catalog items.

Computer systems that are capable of searching databases containing a product catalog of a particular vendor, for example on CD-ROM, are also known. Such systems can search for user requested information about products and create orders which the user can save, print or, in some cases, facsimile directly to a vendor. The known computer systems for searching vendor catalogs are limited in that only one such vendor catalog is accessible to a user at any given time. They are also limited in that they can only create an order within the particular vendor catalog database. They cannot source items to be requisitioned from a database containing multiple catalogs or interact with a requisition/purchasing system (such as Fisher RIMS) to create a purchase order or orders including the items located from that sourcing operation.

Thus, it would be desirable to provide an electronic sourcing system that provides a means for transferring information between a requisition/purchasing system that may use the results of a search of product information and a means for searching large volumes of product information such as would be included in a vendor product catalog or catalogs.

It would also be desirable to provide such an electronic sourcing system that is capable of searching a database containing at least two vendor product catalogs for product information.

It would further be desirable to provide such an electronic sourcing system that is capable of searching a database of catalog items contain in at least two vendor product catalogs, selecting particular items located, and transferring information about the items selected (for example, a catalog number and a vendor identifier, such as vendor name and/or vendor number) to a requisition/purchasing system for inclusion in a requisition generated by the system.

It would further be desirable to provide an electronic sourcing system that is capable of creating an order list including items located as the result of a catalog database search and transferring that order list of desired catalog items to a requisition/purchasing system for inclusion of the catalog items as entries in a requisition generated by the system.

SUMMARY OF THE INVENTION

In view of the foregoing, it is an object of this invention to provide an electronic sourcing method and system that provides a user with the capability of searching a database containing data (including product/vendor identification, and other product information) relating to items available from at least two vendor product catalogs, and the capability of transferring the product information for desired catalog items obtained as a result of the search to a requisition/purchasing system for use in generating a requisition including entries for the desired catalog items.

It is also an object of this invention to provide an electronic sourcing system that provides a means for bi-directionally transferring information between a requisition/purchasing system that may use the results of a search of such product information, and a means for searching large volumes of product information such as would be included in a vendor product catalog.

It is a further object of this invention to provide an electronic sourcing system capable of creating an order list including desired catalog items located as the result of such a database search, and transferring that order list to a

Tab A: "Catalog"

product type; the cross-reference number, if any; and a text description of the item. In step **209**, Requisition Item Table is updated with the following information from the entry in the Plant Location Table in local database **50** associated with the relevant stock number: the quantity of the item available in the Customer-owned inventory **54** in the JIT facility **51** (for product type 06) or in the Distributor-owned inventory **52** in the JIT facility **51** (for product type 01); a description of the location of the item in the relevant stockroom or warehouse (e.g., by aisle and shelf); and a code identifying the relevant stockroom or warehouse. In steps **210** and **211**, the Unit Price is added to the Requisition Item Table if the product type is 06. (The Plant Location Table is created and updated using the Plant Location data screen, a sample of which is set forth in Table VII.)

In the system of the present invention, a particular stock number will preferably be either Customer-owned (product type 06) or Distributor-owned (product type 01) in the local JIT, but not both. Thus a given stock number may or may not have a corresponding entry in the Part Master (or Plant Location) Table in local database **50**; but, if a record exists there, there will be at one time only one record associated with the stock number. Thus, stock stored in the JIT facility **51** of one product (whether in a single bin or in multiple bins), will either be all customer-owned or all Distributor-owned. Customer and Distributor may, however, decide at any time to redesignate particular products from Customer-owned to Distributor-owned (with corresponding change of ownership and debit or credit to the applicable accounts). Such a change can be reflected in local database **50** using the Part Master, Plant Location and Inventory Adjustment data screens (samples of which are set forth in Tables VI, VII and VIII, respectively), without necessarily moving the inventory physically within the JIT facility **51**.

In the instance where the stock number is found in the local database **50**, the display of data screen **68** is then updated in step **212** by displaying: the default unit of measure (in the UM field); the product type (in the PT field); the cross-reference number, if any (in the XREF field); the list price of the item, if the product type is 06 (in the UNIT PRICE field); a text description of the item (in the DESC field); the quantity of the item available in the JIT facility **51** as Customer-owned inventory **54**, product type 06, or as Distributor-owned inventory **52**, product type 01 (in the QTY AVAIL field); a description of the location of the item in the relevant stockroom or warehouse (in the LOC field); and a code identifying the relevant warehouse (in the WHSE field).

At this time, if the product type is shown to be type 03, the CSR may edit this field to change the product type to 04 or 05, as shown in steps **213** and **214** of FIG. **3** if the CSR knows that the item is not regularly available from Distributor as a routine item. This editing will change both the displayed product type and the value of the product type field in the applicable field of the Requisition Item Table. Local database **50** includes as product type 01 items only a subset of the entire set of Distributor catalog items. Thus, in step **206**, local computer **40** assigns a product type 03 by default to any item number which is not determined to be a product type 01 or 06—i.e., for which a Part Master record is not found in local database **50**. As described below, host computer **10** will verify the 03 status for such products during sourcing and communicate information to local computer **40** to establish an error code for such 03 status if not found in host database **20**. If the CSR fails to change the product type for an item which host computer **10** is unable to identify as a Distributor catalog item, an error will result during sourcing when host computer **10** attempts to source the item. This error will be handled as discussed below.

The CSR can then enter the quantity of the item being requisitioned in the field below the QTY label in Requisition Management data screen **68**. The entered quantity will be displayed on data screen **68** and this data will be entered into the appropriate field of the Requisition Item Table in local database **50**. The unit of measure associated with this quantity is defined by the value in the UM field. In the example shown in Table III, this field is occupied by "EA," meaning that the unit of measure is a single unit for A**181** (a single one liter bottle of acetone). This is the default unit of measure for this item and is the unit in which all records and computations are performed. An alternate unit of measure is preferably also provided (as is the case for many of the products in host database **20**), which is a multiple of the standard unit (e.g., a "CS" or case of six such bottles of acetone). Within the Part Master Table, a unit price is maintained, but only for product type 06 will a unit price be displayed at this stage as indicated in steps **210** and **211** (during requisition management and before sourcing).

The CSR may use as many lines of the Requisition Management data screen **68** as are necessary to complete the requisition (up to a preset or default limit set by the system, e.g., 200 lines; or to a lower limit set by the CSR, e.g., 100 lines). Keys F7 and F8 allow the CSR to page forward and backward on Requisition Management data screen **68**; the F9 key provides the next available line number at the top of the list of items (giving the CSR a new screen to work with). Hitting the F4 key creates a new requisition (to which the CSR must assign a new requisition number) with the same Customer Account Number and the associated address information. The F5 key causes a customer variable item data screen to be displayed, which enables the CSR to enter information that the customer desires to have associated with a given item. With the exception of the F10 key, the functions of the remaining function keys will be clear from the previous discussion.

Hitting the F10 key calls the Non-Catalog Information data screen **80** onto the screen of monitor **41**. An example of a Non-Catalog Information data screen **80** is shown in Table V. This data screen is used to enter additional information about items not regularly sold by Distributor (for which host database **20** contains a Distributor catalog number and list price), but which are available as third-party purchases by Distributor (product type 04) or as administrative purchases by Customer (product type 05): e.g., the identification of the third party vendor (by number and name), the vendor's part number, the vendor's offered price and other information shown in Table V. If the CSR has previously created a cross-reference entry in the Cross Reference Table (using Cross Reference Maintenance data screen **76**) for the item, some or all of the information on Non-Catalog Information data screen **80** will be automatically filled in using the data associated with that stock number (of the vendor) in the Cross-Reference Table in local database **50**. Information associated with products of type 04 will, to at least some extent, be shared with the host computer **10**. Information associated with type 05 products will, for the most part, not be shared with the host computer **10**. Nevertheless, records about both types of products are maintained in local database **50** and are available for flat file and other information transfers to the Customer's host computer.

For items of product type 04, the Distributor will order the item for the customer and have it sent to the customer. Consequently, the following information must be entered on the Non-Catalog Information data screen **80** for items of